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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,198	09/22/2003	Michikazu Sakurai	116692004600	7175

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EXAMINER	
FISHER, PAUL R	

ART UNIT	PAPER NUMBER
3689	

NOTIFICATION DATE	DELIVERY MODE
07/21/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/667,198	SAKURAI ET AL.	
	Examiner	Art Unit	
	PAUL R. FISHER	3689	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 April 2011*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *44-48,50-54 and 56-59* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *44-48,50-54 and 56-59* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Amendment received on April 26, 2011, has been acknowledged. Claims 1-43, 49 and 55, have been canceled. Claims 44-48, 50-54 and 56-59 are currently pending and have been considered below.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 44-48, 50-54 and 56-59 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In the amendment dated September 28, 2009, the applicant has amended the claims to include the term "condition input image" which is considered to be new matter. The applicant's originally disclosed specification makes no mention of the term "condition input image", it is currently unclear as to what the meaning of the term is and how it is used in relation to the claims. The Examiner asserts that one of skill in the art would not know what the term is meant to represent in the claims as currently written and could not use the specification as originally filed for guidance. Further it is not clear how this image would be created or how the system creates this image. For these reasons the term "condition input image" and all related limitations are considered to be new matter.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 44-48, 50-54 and 56-59 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Specifically in claims 44-48, 50-54 and 56-59, the applicant has recited the term "condition input image", which renders the claims indefinite. It is unclear to the Examiner what this image is supposed to represent. It is unclear if it is truly an image or merely a form or a page where data is entered. Based on the dependent claims the specifically 45-46, 51-52, and 57-58, the "input image" appears to be a document or form which displays conditions which must be followed to estimate the cost of the final product. For purposes of examination the Examiner has read the "input image" to be a document or form which the user enters information.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. **Claims 44, 47-48, 50, 53-54, 56 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foley (5,249,120) hereafter Foley, in view of Ha et al. (US 2003/0023597 A1) hereafter Ha.**

As per claim 44, Foley discloses an estimation system for product processing comprising a storage unit which stores information, an input unit which receives input of instructions and information, an output unit which outputs information, and a control circuit which controls operation of the foregoing units, the system making an estimate of a to-be-estimated product (Abstract; discloses that the invention is directed toward an estimation system for processing a product from initial state to a final state or end product. Col. 6, lines 64-66; disclose that the variables which effect cost are stored in a database which shows there is a storage unit which stores information. Col. 7, lines 33-37; disclose that the system contains a computer or control circuit, a keyboard or input unit, a storage or storage unit, and terminal or output unit. Col. 6, lines 20-25; disclose that while the invention is directed toward a specific example or product, it is "equally applicable to any type of part or set of manufacturing processes" from this it would have been obvious to apply this invention to any product which is being manufactured such as a harness), wherein:

the storage unit is configured to store a database registering a quantity of child components necessary for manufacturing each product and a unit child component price in association with identification information of the each product, a material cost estimation function for calculating a material cost of a product by inputting thereto the quantity and the unit child component price, and a processing cost estimation function for calculating a processing cost of a product for each processing by inputting thereto calculation factors (Col. 6, lines 64-66; disclose that the system stores the variables which affect the cost of the final part in a database. Col. 9, Table 2; discloses that the

information stored in the system includes Cost of Materials which includes the cost of raw materials or child components; which includes how much is need or the quantity and the price per quantity in this case the cost per pound of each raw material. Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials); and

the control circuit (Col. 7, lines 33-37; disclose that the system contains a computer or control circuit in which the program is run. Col. 7, lines 5-17; discloses that the program runs to input different values to try different scenarios where the process might be improved or find weakness) is configured to perform:

an identification information acquiring function of acquiring, via the input unit, identification information of a to-be-estimated product (Col. 23, lines 35-48; discloses that the system does a complete work of for the particular process and the product that is generated. This is the product that is to-be-estimated since they are trying to determine the start to finish of this product);

a function of reading out, from the database of the storage unit, a quantity of child components and a unit child component price corresponding to the acquired identification information of the product (Col. 24, lines 4-6; disclose that the system pulls the database information for the quantity of materials and the price of those materials for that product. Col. 6, lines 64-66; disclose that the system stores the variables which affect the cost of the final part in a database. Col. 9, Table 2; discloses that the information stored in the system includes Cost of Materials which includes the cost of raw materials or child components; which includes how much is need or the quantity

and the price per quantity in this case the cost per pound of each raw material. Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials);

a function of creating a component screen displaying the read-out quantity of child component and the read-out unit child component price and outputting the component screen via the output unit (Col. 7, lines 5-17; discloses that the user can enter or change variables and examine how it effects the over all cost of the product. Col. 7, lines 33-37; disclose that the invention includes a computer. Figures 12-23; disclose graphical representations of the different processing methods and products and how they compare in terms of cost. Col. 25, lines 10-17; disclose that the invention exposes all the true costs allocated to the proper elements. From this it would have been obvious that the computer terminal displays the read-out of the different components or materials needed and the cost of those components to determine the cost of making that product since that is the point of the invention);

a function of, subsequent to outputting of the component screen, changing the read-out quantity of child components and the read-out unit child component price when a change to the read-out quantity of child components and the readout unit child component price is acquired via the input unit (Col. 7, lines 5-17; disclose that the user can generate different runs for comparison reasons by changing the variables which are stored in the system. As shown above Col. 6, lines 64-66; disclose that the system stores the variables which affect the cost of the final part in a database. Col. 9, Table 2; discloses that the information stored in the system includes Cost of Materials which

includes the cost of raw materials or child components; which includes how much is need or the quantity and the price per quantity in this case the cost per pound of each raw material. Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials. From this it would have been obvious that the user can change the variables in relation to the quantity of an items and the items associated price to do different runs, for example of the item is cheaper in bulk doing additional runs might result in a cheaper unit price for each item and by changing the variables it would easier to see that as suggested by Foley);

a material cost estimation reading out function of reading out a material cost estimation function from the storage unit (Col. 24, lines 4-6; disclose taking the material costs into consideration. Col. 8, lines 18-52; discloses that different materials have different associated costs. Col. 6, lines 64-66 and Col. 12, lines 55-57, Table 5 and Col. 14, lines 48-63; disclose that different databases contain information and that the information is gathered from various sources this information including material costs and that these costs are used in the material cost estimation);

a function of calculating a material cost of a product corresponding to the acquired identification information based on the read-out material cost estimation function, the read-out quantity of child components, and the read-out unit child component price when the change has not been made and calculating a material cost of a product corresponding to the acquired identification information based on the read-out material cost estimation function as well as on a quantity of child components and a unit

child component price after the change when the change has been made (Col. 24, lines 4-6; disclose that the system pulls the database information for the quantity of materials and the price of those materials for that product. Col. 6, lines 64-66; disclose that the system stores the variables which affect the cost of the final part in a database. Col. 9, Table 2; discloses that the information stored in the system includes Cost of Materials which includes the cost of raw materials or child components; which includes how much is need or the quantity and the price per quantity in this case the cost per pound of each raw material. Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials. Col. 7, lines 14-17; discloses that the final product would include all of the parts needed each of the parts having their own raw materials);

a function of registering, in the database, a quantity of child components and a unit child component price, both having been used for calculating the material cost, in association with new identification information (Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials. Table 2 shows that the Cost of Materials is made up of the cost of the raw materials and how much material is need for each part);

a function of creating a condition input image for inputting a predetermined functioning condition of the to-be-estimated product, in response to an instruction from the input unit, and outputting the condition input image from the output unit (Col. 17, lines 27-62, including table 11; discloses that there is a baseline which is a set of conditions which are entered into the system for the purpose of estimating the cost of

the product. Col. 18, line 59 through Col. 19, line 23; discloses that the system can also evaluate different raw materials and output the different results for each raw material. Given that each raw material would have different quantity and different processes would be required each material causes its own path to be created and thus has its own individual final cost which is to be evaluated by the system. Col. 24, lines 22-68; disclose that the system enters a set of conditions for each path and determines every possible path for completing the end product this the system enters the various possible conditions into the system to determine what the most cost effective process is. Since the term condition input image can not be found in the specification and it is unclear from reading the specification what this is to mean, the Examiner is interpreting the limitation to be entering a set of conditions the system must follow for that process and outputting the result which is shown as discussed above);

a function of, subsequent to outputting the condition input image, selecting an instrument to be used in processing of the product for which estimation is to be made based on a condition input from the input unit (Col. 15, lines 16-68 and Figure 5; discloses there are a number of processes that can be run through different machines on different materials. Col. 24, lines 1-68; disclose that each possible path for a process to manufacture a part is considered, in doing so different instruments are selected and each instrument or machine has it is own associated tooling costs, running costs, and labor costs, all of which are used in determining the final cost of the product);

a function of identifying the processing that needs to be performed when the to-be-estimated product is processed by the selected instrument (Col. 18, line 59 through,

Col. 19, line 23; discloses that each material has different associated processing and thus when a specific material is chosen the machines and the processes are identified to determine the final cost if that material is used. Col. 24, lines 22-68; discloses that the system identifies all possible paths and through that the various processes that are to be conducted on each of the paths);

a function of forming, for the identified processing, a factor input image for inputting the calculation factors needed for calculating a processing cost of the product and outputting the factor input image from the output unit (Col. 24, lines 22-68; discloses that each process tree is a view of a way the final product can be achieved along with the path comes the various factors associated with that path as shown in Table 2, all of these factors go into estimating the final cost of the product. Col. 7, lines 5-17; disclose that the user can generate different runs for comparison reasons by changing the variables which are stored in the system. As shown above Col. 6, lines 64-66; disclose that the system stores the variables which affect the cost of the final part in a database. Col. 9, Table 2; discloses that the information stored in the system includes Cost of Materials which includes the cost of raw materials or child components; which includes how much is need or the quantity and the price per quantity in this case the cost per pound of each raw material. Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials. From this it would have been obvious that the user can change the variables in relation to the quantity of an items and the items associated price to do different runs, for example of the item is cheaper in bulk doing additional

runs might result in a cheaper unit price for each item and by changing the variables it would easier to see that as suggested by Foley);

a processing cost estimation reading out function of reading out, from the storage unit, a processing cost estimation function corresponding to the identified processing (Col. 6, lines 64-66 and Col. 12, lines 55-57, Table 5 and Col. 14, lines 48-63; disclose that different databases contain information and that the information is gathered from various sources this information including material costs and that these costs are used in the material cost estimation. Col. 25, lines 1-18; disclose that the system pulls the cost estimation calculations from the system to calculate each path which is found to compare which path is most cost effective); and

a function of calculating, subsequent to outputting of the factor input image, a processing cost of the product for which estimation is to be made based on the calculation factors input from the input unit and the read-out processing cost estimation function (Col. 25, lines 1-18; disclose that the system pulls the cost estimation calculations from the system to calculate each path which is found to compare which path is most cost effective),

Foley fails to explicitly disclose wherein the input unit and the output unit comprise a communication unit which communicates with an external terminal, and the communication unit is configured to input instructions and information received from the external terminal for input to the control circuit and transmit a product estimation result including the material cost and the processing cost of the product calculated by the control circuit.

Ha, which like Foley talks about project management and tracking costs, teaches wherein the input unit and the output unit comprise a communication unit which communicates with an external terminal, and the communication unit is configured to input instructions and information received from the external terminal for input to the control circuit and transmit a product estimation result including the material cost and the processing cost of the product calculated by the control circuit (Page 1, paragraph [0015]; teaches that the system includes a computer which accesses a display page or a project management display page located on a management site on a server computer. Page 1, paragraph [0016]; teaches that the terminal in this case the user computer enters the project information through their computer via the website. Page 2, paragraph [0017]; teaches that after the user enters the information the user can then view the values through the display page. Thus the system is working as remote system where the user can enter information from anywhere through the Internet and receive results. It would have been obvious to use such a remote processing system in Foley for the purpose of allowing the users of the system to enter information and get results from anywhere and not be limited to only the computer where the information is stored. Since Foley is also for cost tracking and cost estimation it would have been obvious to allow the users to access the system from remote locates to help with accessibility and ease of use).

Therefore, from this teaching of Ha, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cost estimation system provided by Foley, with the remote access capabilities of Ha, for the purpose of

giving their users more access to the system. Since Foley is also for cost tracking and cost estimation it would have been obvious to allow the users to access the system from remote locates to help with accessibility and ease of use.

Examiner Note: as stated above the term Harness, is merely a title of the product which is being evaluated, and does not add any additional steps or structure to the system. As such the fact that the product is a Harness does not serve to differentiate the claims from the prior art.

As per claim 47, the combination of Foley and Ha teaches the above-enclosed invention, Foley further discloses the processing cost estimation function includes functions for calculating an instrument operation cost, an instrument labor cost, and a planning cost as a processing cost (Col. 9, line 1 through Col. 10, line 9, including table 2; discloses that the cost estimation includes equipment costs or instrument costs, labor costs, and planning costs such as labor overhead); and

the control circuit performs a step of adding up an instrument operation cost, and instrument labor cost, and a planning cost (Col. 9, line 1 through Col. 10, line 9, including table 2; discloses that in the calculation for total cost of the part all of the variables are added together to get a final cost for each part).

As per claim 48, the combination of Foley and Ha teaches the above-enclosed invention, Ha further teaches a communication unit which receives the estimation function and stores the received estimation function in the storage unit (Page 2, paragraph [0017]; teaches that the information is communicated from the user and is received and stored by the system in the database which was selected by the user);

As per claim 50, Foley discloses an estimation method for product processing for estimating a to-be-estimated product in an estimation system for product processing comprising a storage unit which stores information, an input unit which inputs instructions and information, and output unit which outputs information, and a control circuit which controls operation of the foregoing units and making an estimate of the to-be-estimated (Abstract; discloses that the invention is directed toward an estimation system for processing a product from initial state to a final state or end product. Col. 6, lines 64-66; disclose that the variables which effect cost are stored in a database which shows there is a storage unit which stores information. Col. 7, lines 33-37; disclose that the system contains a computer or control circuit, a keyboard or input unit, a storage or storage unit, and terminal or output unit. Col. 6, lines 20-25; disclose that while the invention is directed toward a specific example or product, it is "equally applicable to any type of part or set of manufacturing processes" from this it would have been obvious to apply this invention to any product which is being manufactured such as a harness) product the estimation method for product processing comprising:

a step of storing, by the storage unit a database registering a quantity of child components necessary for manufacturing each product and a unit child component price in association with identification information of the each product, a material cost estimation function for calculating a material cost of a product by inputting thereto the quantity and the unit child component price, and a processing cost estimation function for calculating a processing cost of a product for each processing by inputting thereto calculation factors (Col. 6, lines 64-66; disclose that the system stores the variables

which affect the cost of the final part in a database. Col. 9, Table 2; discloses that the information stored in the system includes Cost of Materials which includes the cost of raw materials or child components; which includes how much is need or the quantity and the price per quantity in this case the cost per pound of each raw material. Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials. Col. 24, lines 4-6; disclose taking the material costs into consideration. Col. 8, lines 18-52; discloses that different materials have different associated costs. Col. 6, lines 64-66 and Col. 12, lines 55-57, Table 5 and Col. 14, lines 48-63; disclose that different databases contain information and that the information is gathered from various sources this information including material costs and that these costs are used in the material cost estimation. Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials. Col. 7, lines 14-17; discloses that the final product would include all of the parts needed each of the parts having their own raw materials); and

steps performed by the control circuit (Col. 7, lines 33-37; disclose that the system contains a computer or control circuit in which the program is run. Col. 7, lines 5-17; discloses that the program runs to input different values to try different scenarios where the process might be improved or find weakness), the steps being:

an identification information acquiring step of acquiring, via the input unit, identification information of the to-be-estimated product (Col. 23, lines 35-48; discloses that the system does a complete work of for the particular process and the product that

is generated. This is the product that is to-be-estimated since they are trying to determine the start to finish of this product);

a step of reading out, from the database of the storage unit, a quantity of child components and a unit child component price corresponding to the acquired identification information of the product (Col. 24, lines 4-6; disclose that the system pulls the database information for the quantity of materials and the price of those materials for that product. Col. 6, lines 64-66; disclose that the system stores the variables which affect the cost of the final part in a database. Col. 9, Table 2; discloses that the information stored in the system includes Cost of Materials which includes the cost of raw materials or child components; which includes how much is need or the quantity and the price per quantity in this case the cost per pound of each raw material. Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials);

a step of creating a component screen displaying the read-out quantity of child components and the read-out unit child component price and outputting the component screen via the output unit (Col. 24, lines 4-6; disclose that the system pulls the database information for the quantity of materials and the price of those materials for that product. Col. 6, lines 64-66; disclose that the system stores the variables which affect the cost of the final part in a database. Col. 9, Table 2; discloses that the information stored in the system includes Cost of Materials which includes the cost of raw materials or child components; which includes how much is need or the quantity and the price per quantity in this case the cost per pound of each raw material. Col. 9, lines 1-16; disclose

the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials. Col. 7, lines 5-17; disclose that the user can generate different runs for comparison reasons by changing the variables which are stored in the system. As shown above Col. 6, lines 64-66; disclose that the system stores the variables which affect the cost of the final part in a database. Col. 9, Table 2; discloses that the information stored in the system includes Cost of Materials which includes the cost of raw materials or child components; which includes how much is need or the quantity and the price per quantity in this case the cost per pound of each raw material. Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials. From this it would have been obvious that the user can change the variables in relation to the quantity of an items and the items associated price to do different runs, for example of the item is cheaper in bulk doing additional runs might result in a cheaper unit price for each item and by changing the variables it would easier to see that as suggested by Foley, as such it would have been obvious for the system to display this to the user for review);

a step of changing, subsequent to outputting of the component screen, the read-out quantity of child components and the read-out unit child component price when a change to the read-out quantity of child components and the readout unit child component price is acquired via the input unit (Col. 7, lines 5-17; disclose that the user can generate different runs for comparison reasons by changing the variables which are stored in the system. As shown above Col. 6, lines 64-66; disclose that the system

stores the variables which affect the cost of the final part in a database. Col. 9, Table 2; discloses that the information stored in the system includes Cost of Materials which includes the cost of raw materials or child components; which includes how much is need or the quantity and the price per quantity in this case the cost per pound of each raw material. Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials. From this it would have been obvious that the user can change the variables in relation to the quantity of an items and the items associated price to do different runs, for example of the item is cheaper in bulk doing additional runs might result in a cheaper unit price for each item and by changing the variables it would easier to see that as suggested by Foley);

a material cost estimation function reading out step of reading out a material cost estimation function from the storage unit (Col. 24, lines 4-6; disclose taking the material costs into consideration. Col. 8, lines 18-52; discloses that different materials have different associated costs. Col. 6, lines 64-66 and Col. 12, lines 55-57, Table 5 and Col. 14, lines 48-63; disclose that different databases contain information and that the information is gathered from various sources this information including material costs and that these costs are used in the material cost estimation);

a material cost calculating step of calculating a material cost of a product corresponding to the acquired identification based on the read-out material cost estimation function, the read-out quantity of child components, and the read-out unit child component price when the change has not been made and calculating a material

cost of a product corresponding to the acquired identification information based on the read-out material cost estimation function as well as on a quantity of child components and a unit child component price after the change when the change has been made (Col. 24, lines 4-6; disclose that the system pulls the database information for the quantity of materials and the price of those materials for that product. Col. 6, lines 64-66; disclose that the system stores the variables which affect the cost of the final part in a database. Col. 9, Table 2; discloses that the information stored in the system includes Cost of Materials which includes the cost of raw materials or child components; which includes how much is need or the quantity and the price per quantity in this case the cost per pound of each raw material. Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials. Col. 7, lines 14-17; discloses that the final product would include all of the parts needed each of the parts having their own raw materials);

a step of registering, in the database, a quantity of child components and a unit child component price, both having been used for calculating the material cost, in association with new identification information (Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials. Table 2 shows that the Cost of Materials is made up of the cost of the raw materials and how much material is need for each part);

a step of creating a condition input image for inputting a predetermined processing condition of the to-be-estimated product, in response to an instruction from the input unit, and outputting the condition input image from the output unit (Col. 17,

lines 27-62, including table 11; discloses that there is a baseline which is a set of conditions which are entered into the system for the purpose of estimating the cost of the product. Col. 18, line 59 through Col. 19, line 23; discloses that the system can also evaluate different raw materials and output the different results for each raw material. Given that each raw material would have different quantity and different processes would be required each material causes its own path to be created and thus has its own individual final cost which is to be evaluated by the system. Col. 24, lines 22-68; disclose that the system enters a set of conditions for each path and determines every possible path for completing the end product this the system enters the various possible conditions into the system to determine what the most cost effective process is. Since the term condition input image can not be found in the specification and it is unclear from reading the specification what this is to mean, the Examiner is interpreting the limitation to be entering a set of conditions the system must follow for that process and outputting the result which is shown as discussed above);

a step of, subsequent to outputting the condition input image, selecting an instrument to be used in processing of the to-be-estimated product based on a condition input from the input unit (Col. 15, lines 16-68 and Figure 5; discloses there are a number of processes that can be run through different machines on different materials. Col. 24, lines 1-68; disclose that each possible path for a process to manufacture a part is considered, in doing so different instruments are selected and each instrument or machine has it is own associated tooling costs, running costs, and labor costs, all of which are used in determining the final cost of the product);

a step of identifying the processing that needs to be performed when the to-be-estimated product is processed by the selected instrument (Col. 18, line 59 through, Col. 19, line 23; discloses that each material has different associated processing and thus when a specific material is chosen the machines and the processes are identified to determine the final cost if that material is used. Col. 24, lines 22-68; discloses that the system identifies all possible paths and through that the various processes that are to be conducted on each of the paths);

a step of forming, for the identified processing, a factor input image for inputting the calculation factors needed for calculating a processing cost of the product and outputting the factor input image from the output unit (Col. 24, lines 22-68; discloses that each process tree is a view of a way the final product can be achieved along with the path comes the various factors associated with that path as shown in Table 2, all of these factors go into estimating the final cost of the product. Col. 7, lines 5-17; disclose that the user can generate different runs for comparison reasons by changing the variables which are stored in the system. As shown above Col. 6, lines 64-66; disclose that the system stores the variables which affect the cost of the final part in a database. Col. 9, Table 2; discloses that the information stored in the system includes Cost of Materials which includes the cost of raw materials or child components; which includes how much is need or the quantity and the price per quantity in this case the cost per pound of each raw material. Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials. From this it would have been obvious that the user can change the

variables in relation to the quantity of an items and the items associated price to do different runs, for example of the item is cheaper in bulk doing additional runs might result in a cheaper unit price for each item and by changing the variables it would easier to see that as suggested by Foley);

a processing cost estimation function reading out step of reading out, from the storage unit, a processing cost estimation function corresponding to the identified processing (Col. 6, lines 64-66 and Col. 12, lines 55-57, Table 5 and Col. 14, lines 48-63; disclose that different databases contain information and that the information is gathered from various sources this information including material costs and that these costs are used in the material cost estimation. Col. 25, lines 1-18; disclose that the system pulls the cost estimation calculations from the system to calculate each path which is found to compare which path is most cost effective);

a processing cost calculating step of calculating, subsequent to outputting of the factor input image, a processing cost of the to-be-estimated product based on the calculation factors input from the input unit and the read-out processing cost estimation function (Col. 25, lines 1-18; disclose that the system pulls the cost estimation calculations from the system to calculate each path which is found to compare which path is most cost effective. Col. 25, lines 1-18; disclose that the system pulls the cost estimation calculations from the system to calculate each path which is found to compare which path is most cost effective); and

a step of outputting a product estimation result including the material cost calculated in the material cost calculating step and the processing cost calculated in the

processing cost calculating step (Col. 25, lines 1-18; disclose that the system pulls the cost estimation calculations from the system to calculate each path which is found to compare which path is most cost effective).

Foley fails to explicitly disclose an input unit which inputs instructions and information by communicating with an external terminal, and output unit which outputs information by communicating with the external terminal.

Ha, which like Foley talks about project management and tracking costs, teaches an input unit which inputs instructions and information by communicating with an external terminal, and output unit which outputs information by communicating with the external terminal (Page 1, paragraph [0015]; teaches that the system includes a computer which accesses a display page or a project management display page located on a management site on a server computer. Page 1, paragraph [0016]; teaches that the terminal in this case the user computer enters the project information through their computer via the website. Page 2, paragraph [0017]; teaches that after the user enters the information the user can then view the values through the display page. Thus the system is working as remote system where the user can enter information from anywhere through the Internet and receive results. It would have been obvious to use such a remote processing system in Foley for the purpose of allowing the users of the system to enter information and get results from anywhere and not be limited to only the computer where the information is stored. Since Foley is also for cost tracking and cost estimation it would have been obvious to allow the users to access the system from remote locates to help with accessibility and ease of use).

Therefore, from this teaching of Ha, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cost estimation system provided by Foley, with the remote access capabilities of Ha, for the purpose of giving their users more access to the system. Since Foley is also for cost tracking and cost estimation it would have been obvious to allow the users to access the system from remote locates to help with accessibility and ease of use.

Examiner Note: as stated above the term Harness, is merely a title of the product which is being evaluated, and does not add any additional steps or structure to the system. As such the fact that the product is a Harness does not serve to differentiate the claims from the prior art.

As per claim 53, the combination of Foley and Ha teaches the above-enclosed invention, Foley further discloses the processing cost estimation function includes functions for calculating an instrument operation cost, an instrument labor cost, and a planning cost as a processing cost (Col. 9, line 1 through Col. 10, line 9, including table 2; discloses that the cost estimation includes equipment costs or instrument costs, labor costs, and planning costs such as labor overhead); and

a step of adding up an instrument operation cost, and instrument labor cost, and a planning cost is performed by the control circuit (Col. 9, line 1 through Col. 10, line 9, including table 2; discloses that in the calculation for total cost of the part all of the variables are added together to get a final cost for each part).

As per claim 54, the combination of Foley and Ha teaches the above-enclosed invention, Ha further teaches the system comprises a communication unit, whereby the

estimation function is received and stored in the storage unit (Page 2, paragraph [0017]; teaches that the information is communicated from the user and is received and stored by the system in the database which was selected by the user).

As per claim 56, Foley discloses in an estimation system for product processing comprising a storage unit which stores information, an input unit which inputs instructions and information, an output unit which outputs information, and a control circuit which controls operation of the foregoing units, wherein the storage unit stores a database registering a quantity of child components necessary for manufacturing each product and a unit child component price in association with identification information of the each product, a material cost estimation function for calculating a material cost of a product by inputting thereto the quantity and the unit child component price, and a processing cost estimation function for calculating a processing cost of a product for each processing by inputting thereto calculation factors (Abstract; discloses that the invention is directed toward an estimation system for processing a product from initial state to a final state or end product. Col. 6, lines 64-66; disclose that the variables which effect cost are stored in a database which shows there is a storage unit which stores information. Col. 7, lines 33-37; disclose that the system contains a computer or control circuit, a keyboard or input unit, a storage or storage unit, and terminal or output unit. Col. 6, lines 20-25; disclose that while the invention is directed toward a specific example or product, it is "equally applicable to any type of part or set of manufacturing processes" from this it would have been obvious to apply this invention to any product which is being manufactured such as a harness. Col. 6, lines 64-66; disclose that the

system stores the variables which affect the cost of the final part in a database. Col. 9, Table 2; discloses that the information stored in the system includes Cost of Materials which includes the cost of raw materials or child components; which includes how much is need or the quantity and the price per quantity in this case the cost per pound of each raw material. Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials), a program causing the control circuit to perform:

an identification information acquiring step of acquiring, via the input unit, identification information of a to-be-estimated product (Col. 23, lines 35-48; discloses that the system does a complete work of for the particular process and the product that is generated. This is the product that is to-be-estimated since they are trying to determine the start to finish of this product);

a step of reading out, from the database of the storage unit, a quantity of child components and a unit child component price corresponding to the acquired identification information of the product (Col. 24, lines 4-6; disclose that the system pulls the database information for the quantity of materials and the price of those materials for that product. Col. 6, lines 64-66; disclose that the system stores the variables which affect the cost of the final part in a database. Col. 9, Table 2; discloses that the information stored in the system includes Cost of Materials which includes the cost of raw materials or child components; which includes how much is need or the quantity and the price per quantity in this case the cost per pound of each raw material. Col. 9,

lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials);

a step of creating a component screen displaying the read-out quantity of child components and the read-out unit child component price and outputting the component screen via the output unit (Col. 7, lines 5-17; discloses that the user can enter or change variables and examine how it effects the over all cost of the product. Col. 7, lines 33-37; disclose that the invention includes a computer. Figures 12-23; disclose graphical representations of the different processing methods and products and how they compare in terms of cost. Col. 25, lines 10-17; disclose that the invention exposes all the true costs allocated to the proper elements. From this it would have been obvious that the computer terminal displays the read-out of the different components or materials needed and the cost of those components to determine the cost of making that product since that is the point of the invention);

a step of changing, subsequent to outputting of the component screen, the read-out quantity of child components and the read-out unit child component price when a change to the read-out quantity of child components and the readout unit child component price is acquired via the input unit (Col. 7, lines 5-17; disclose that the user can generate different runs for comparison reasons by changing the variables which are stored in the system. As shown above Col. 6, lines 64-66; disclose that the system stores the variables which affect the cost of the final part in a database. Col. 9, Table 2; discloses that the information stored in the system includes Cost of Materials which includes the cost of raw materials or child components; which includes how much is

need or the quantity and the price per quantity in this case the cost per pound of each raw material. Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials. From this it would have been obvious that the user can change the variables in relation to the quantity of an items and the items associated price to do different runs, for example of the item is cheaper in bulk doing additional runs might result in a cheaper unit price for each item and by changing the variables it would easier to see that as suggested by Foley);

a material cost estimation function reading out step of reading out a material cost estimation function from the storage unit (Col. 24, lines 4-6; disclose taking the material costs into consideration. Col. 8, lines 18-52; discloses that different materials have different associated costs. Col. 6, lines 64-66 and Col. 12, lines 55-57, Table 5 and Col. 14, lines 48-63; disclose that different databases contain information and that the information is gathered from various sources this information including material costs and that these costs are used in the material cost estimation);

a material cost calculating step of calculating a material cost of the product corresponding to the acquired identification information based on the read-out material cost estimation function, the read-out quantity of child components, and the read-out unit child component price when the change has not been made and calculating a material cost of a product corresponding to the acquired identification information based on the read-out material cost estimation function as well as on a quantity of child components and a unit child component price after the change when the change has

been made (Col. 24, lines 4-6; disclose that the system pulls the database information for the quantity of materials and the price of those materials for that product. Col. 6, lines 64-66; disclose that the system stores the variables which affect the cost of the final part in a database. Col. 9, Table 2; discloses that the information stored in the system includes Cost of Materials which includes the cost of raw materials or child components; which includes how much is need or the quantity and the price per quantity in this case the cost per pound of each raw material. Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials. Col. 7, lines 14-17; discloses that the final product would include all of the parts needed each of the parts having their own raw materials);

a step of registering, in the database, a quantity of child components and a unit child component price, both having been used for calculating the material cost, in association with new identification information (Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials. Table 2 shows that the Cost of Materials is made up of the cost of the raw materials and how much material is need for each part);

a step of creating a condition input image for inputting a predetermined processing condition of the to-be-estimated product, in response to an instruction from the input unit, and outputting the condition input image from the output unit (Col. 17, lines 27-62, including table 11; discloses that there is a baseline which is a set of conditions which are entered into the system for the purpose of estimating the cost of

the product. Col. 18, line 59 through Col. 19, line 23; discloses that the system can also evaluate different raw materials and output the different results for each raw material. Given that each raw material would have different quantity and different processes would be required each material causes its own path to be created and thus has its own individual final cost which is to be evaluated by the system. Col. 24, lines 22-68; disclose that the system enters a set of conditions for each path and determines every possible path for completing the end product this the system enters the various possible conditions into the system to determine what the most cost effective process is. Since the term condition input image can not be found in the specification and it is unclear from reading the specification what this is to mean, the Examiner is interpreting the limitation to be entering a set of conditions the system must follow for that process and outputting the result which is shown as discussed above);

a step of, subsequent to outputting the condition input image, selecting an instrument to be used in processing of the to-be-estimated product based on a condition input from the input unit (Col. 15, lines 16-68 and Figure 5; discloses there are a number of processes that can be run through different machines on different materials. Col. 24, lines 1-68; disclose that each possible path for a process to manufacture a part is considered, in doing so different instruments are selected and each instrument or machine has it is own associated tooling costs, running costs, and labor costs, all of which are used in determining the final cost of the product);

a step of identifying the processing that needs to be performed when the to-be-estimated product is processed by the selected instrument (Col. 18, line 59 through,

Col. 19, line 23; discloses that each material has different associated processing and thus when a specific material is chosen the machines and the processes are identified to determine the final cost if that material is used. Col. 24, lines 22-68; discloses that the system identifies all possible paths and through that the various processes that are to be conducted on each of the paths);

a step of forming, for the identified processing, a factor input image for inputting the calculation factors needed for calculating a processing cost of the product and outputting the factor input image from the output unit (Col. 24, lines 22-68; discloses that each process tree is a view of a way the final product can be achieved along with the path comes the various factors associated with that path as shown in Table 2, all of these factors go into estimating the final cost of the product. Col. 7, lines 5-17; disclose that the user can generate different runs for comparison reasons by changing the variables which are stored in the system. As shown above Col. 6, lines 64-66; disclose that the system stores the variables which affect the cost of the final part in a database. Col. 9, Table 2; discloses that the information stored in the system includes Cost of Materials which includes the cost of raw materials or child components; which includes how much is need or the quantity and the price per quantity in this case the cost per pound of each raw material. Col. 9, lines 1-16; disclose the equation or calculations which are performed to find the cost per part or cost for the final product which include Cost of Materials. From this it would have been obvious that the user can change the variables in relation to the quantity of an items and the items associated price to do different runs, for example of the item is cheaper in bulk doing additional runs might

result in a cheaper unit price for each item and by changing the variables it would easier to see that as suggested by Foley);

a processing cost estimation function reading out step of reading out, from the storage unit, a processing cost estimation function corresponding to the identified processing (Col. 6, lines 64-66 and Col. 12, lines 55-57, Table 5 and Col. 14, lines 48-63; disclose that different databases contain information and that the information is gathered from various sources this information including material costs and that these costs are used in the material cost estimation. Col. 25, lines 1-18; disclose that the system pulls the cost estimation calculations from the system to calculate each path which is found to compare which path is most cost effective); and

a processing cost calculating step of calculating, subsequent to outputting of the factor input image, a processing cost of the to-be-estimated product based on the calculation factors input from the input unit and the read-out processing cost estimation function (Col. 25, lines 1-18; disclose that the system pulls the cost estimation calculations from the system to calculate each path which is found to compare which path is most cost effective).

Foley fails to explicitly disclose an input unit which inputs instructions and information by communicating with an external terminal, and output unit which outputs information by communicating with the external terminal.

Ha, which like Foley talks about project management and tracking costs, teaches an input unit which inputs instructions and information by communicating with an external terminal, and output unit which outputs information by communicating with the

external terminal (Page 1, paragraph [0015]; teaches that the system includes a computer which accesses a display page or a project management display page located on a management site on a server computer. Page 1, paragraph [0016]; teaches that the terminal in this case the user computer enters the project information through their computer via the website. Page 2, paragraph [0017]; teaches that after the user enters the information the user can then view the values through the display page. Thus the system is working as remote system where the user can enter information from anywhere through the Internet and receive results. It would have been obvious to use such a remote processing system in Foley for the purpose of allowing the users of the system to enter information and get results from anywhere and not be limited to only the computer where the information is stored. Since Foley is also for cost tracking and cost estimation it would have been obvious to allow the users to access the system from remote locates to help with accessibility and ease of use).

Therefore, from this teaching of Ha, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cost estimation system provided by Foley, with the remote access capabilities of Ha, for the purpose of giving their users more access to the system. Since Foley is also for cost tracking and cost estimation it would have been obvious to allow the users to access the system from remote locates to help with accessibility and ease of use.

Examiner Note: as stated above the term Harness, is merely a title of the product which is being evaluated, and does not add any additional steps or structure to the

system. As such the fact that the product is a Harness does not serve to differentiate the claims from the prior art.

As per claim 59, the combination of Foley and Ha teaches the above-enclosed invention, Foley further discloses the processing cost estimation function includes functions for calculating an instrument operation cost, an instrument labor cost, and a planning cost as a processing cost (Col. 9, line 1 through Col. 10, line 9, including table 2; discloses that the cost estimation includes equipment costs or instrument costs, labor costs, and planning costs such as labor overhead); and

the control circuit performs a step of adding up an instrument operation cost, an instrument labor cost, and a planning cost (Col. 9, line 1 through Col. 10, line 9, including table 2; discloses that in the calculation for total cost of the part all of the variables are added together to get a final cost for each part).

9. **Claims 45-46, 51-52 and 57-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foley (5,249,120) hereafter Foley, in view of Ha et al. (US 2003/0023597 A1) hereafter Ha, further in view of Wolff et al. (5,774,887) hereafter Wolff.**

As per claim 45, the combination of Foley and Ha teaches the above-enclosed invention, however fails to explicitly disclose a portion of the factor input image where the calculation factors of the identified processing are to be input is differentiated from other portions thereof by color.

Wolff, which talks about an electronic form generating system similar to the form found in Ha, teaches it is known to have a portion of the factor input image where the

calculation factors of the identified processing are to be input is differentiated from other portions thereof (Col. 9, lines 14-20; teaches that when filling out a form or input image the required factors are identified and differentiated from the other parts by highlight or drawing a visual cue such as color to draw the users attention to these fields. It would have been obvious to use such visual cues in the combination of Foley and Ha, so that the user when entering information knows which fields are required and has an easy visual cue to help them differentiate different parts of the document from each other).

Therefore, from this teaching of Wolff, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cost estimation system provided by the combination of Foley and ha, with the use of visual cues to differentiate the form for the user as taught by Wolff, for the purpose of giving the user an easier means of differentiating the document and helping them know which fields are required and what data is necessary to perform the calculations.

As per claim 46, the combination of Foley and Ha teaches the above-enclosed invention, however fails to explicitly disclose when the factor input image comprises a plurality of pages, the control circuit displays, on each of the plurality of pages of the factor input image, a guidance indicating which one of the pages has a portion where the calculation factors of the identified processing are to be input.

Wolff, which talks about an electronic form generating system similar to the form found in Ha, teaches it is known to have the factor input image comprises a plurality of pages, the control circuit displays, on each of the plurality of pages of the factor input image, a guidance indicating which one of the pages has a portion where the calculation

factors of the identified processing are to be input (Col. 9, lines 14-20; teaches that when filling out a form or input image the required factors are identified and differentiated from the other parts by highlight or drawing a visual cue such as color to draw the users attention to these fields. This provides guidance to the user as to which portions of the document need to be filled in. It would have been obvious to use such visual cues in the combination of Foley and Ha, so that the user when entering information knows which fields are required and has an easy visual cue to help them differentiate different parts of the document from each other).

Therefore, from this teaching of Wolff, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cost estimation system provided by the combination of Foley and ha, with the use of visual cues to differentiate the form for the user as taught by Wolff, for the purpose of giving the user an easier means of differentiating the document and helping them know which fields are required and what data is necessary to perform the calculations.

As per claim 51, the combination of Foley and Ha teaches the above-enclosed invention, however fails to explicitly disclose a portion of the factor input image where the calculation factors of the identified processing are to be input is differentiated from other portions thereof by color.

Wolff, which talks about an electronic form generating system similar to the form found in Ha, teaches it is known to have a portion of the factor input image where the calculation factors of the identified processing are to be input is differentiated from other portions thereof (Col. 9, lines 14-20; teaches that when filling out a form or input image

the required factors are identified and differentiated from the other parts by highlight or drawing a visual cue such as color to draw the users attention to these fields. It would have been obvious to use such visual cues in the combination of Foley and Ha, so that the user when entering information knows which fields are required and has an easy visual cue to help them differentiate different parts of the document from each other).

Therefore, from this teaching of Wolff, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cost estimation system provided by the combination of Foley and ha, with the use of visual cues to differentiate the form for the user as taught by Wolff, for the purpose of giving the user an easier means of differentiating the document and helping them know which fields are required and what data is necessary to perform the calculations.

As per claim 52, the combination of Foley and Ha teaches the above-enclosed invention, however fails to explicitly disclose when the factor input image comprises a plurality of pages, a guidance indicating which one of the pages has a portion where the calculation factors of the identified processing are to be input is displayed on each of the plurality of pages by the control circuit.

Wolff, which talks about an electronic form generating system similar to the form found in Ha, teaches it is known to have the factor input image comprises a plurality of pages, the control circuit displays, on each of the plurality of pages of the factor input image, a guidance indicating which one of the pages has a portion where the calculation factors of the identified processing are to be input (Col. 9, lines 14-20; teaches that when filling out a form or input image the required factors are identified and

differentiated from the other parts by highlight or drawing a visual cue such as color to draw the users attention to these fields. This provides guidance to the user as to which portions of the document need to be filled in. It would have been obvious to use such visual cues in the combination of Foley and Ha, so that the user when entering information knows which fields are required and has an easy visual cue to help them differentiate different parts of the document from each other).

Therefore, from this teaching of Wolff, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cost estimation system provided by the combination of Foley and ha, with the use of visual cues to differentiate the form for the user as taught by Wolff, for the purpose of giving the user an easier means of differentiating the document and helping them know which fields are required and what data is necessary to perform the calculations.

As per claim 57, the combination of Foley and Ha teaches the above-enclosed invention, however fails to explicitly disclose a portion of the factor input image where the calculation factors of the identified processing are to be input is differentiated from other portions thereof by color.

Wolff, which talks about an electronic form generating system similar to the form found in Ha, teaches it is known to have a portion of the factor input image where the calculation factors of the identified processing are to be input is differentiated from other portions thereof (Col. 9, lines 14-20; teaches that when filling out a form or input image the required factors are identified and differentiated from the other parts by highlight or drawing a visual cue such as color to draw the users attention to these fields. It would

have been obvious to use such visual cues in the combination of Foley and Ha, so that the user when entering information knows which fields are required and has an easy visual cue to help them differentiate different parts of the document from each other).

Therefore, from this teaching of Wolff, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cost estimation system provided by the combination of Foley and ha, with the use of visual cues to differentiate the form for the user as taught by Wolff, for the purpose of giving the user an easier means of differentiating the document and helping them know which fields are required and what data is necessary to perform the calculations.

As per claim 58, the combination of Foley and Ha teaches the above-enclosed invention, however fails to explicitly disclose when the factor input image comprises a plurality of pages, the control circuit displays, on each of the plurality of pages of the factor input image, a guidance indicating which one of the pages has a portion where the calculation factors of the identified processing are to be input.

Wolff, which talks about an electronic form generating system similar to the form found in Ha, teaches it is known to have the factor input image comprises a plurality of pages, the control circuit displays, on each of the plurality of pages of the factor input image, a guidance indicating which one of the pages has a portion where the calculation factors of the identified processing are to be input (Col. 9, lines 14-20; teaches that when filling out a form or input image the required factors are identified and differentiated from the other parts by highlight or drawing a visual cue such as color to draw the users attention to these fields. This provides guidance to the user as to which

portions of the document need to be filled in. It would have been obvious to use such visual cues in the combination of Foley and Ha, so that the user when entering information knows which fields are required and has an easy visual cue to help them differentiate different parts of the document from each other).

Therefore, from this teaching of Wolff, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cost estimation system provided by the combination of Foley and Ha, with the use of visual cues to differentiate the form for the user as taught by Wolff, for the purpose of giving the user an easier means of differentiating the document and helping them know which fields are required and what data is necessary to perform the calculations.

Response to Arguments

10. Applicant's arguments filed April 26, 2011 have been fully considered but they are not persuasive.

11. Applicant's arguments with respect to claims 44-48, 50-54 and 56-59 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL R. FISHER whose telephone number is (571)270-5097. The examiner can normally be reached on Mon/Fri [8am/4:30pm].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janice Mooneyham can be reached on (571) 272-6805. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. R. F./
Examiner, Art Unit 3689

/Gerardo Araque Jr./
Primary Examiner, Art Unit 3689